NATURAL GRAVEL SURFACING FOR UNPAVED ROADWAYS

308.1 GENERAL

This section defines the material and construction requirements for natural gravel surfacing for unpaved roadways.

308.2 REFERENCES

308.2.1 ASTM:
C 117
C 131
C 136

308.2.2 AASHTO:
T 90
T 180

308.3 MATERIALS

308.3.1 CLASSIFICATION: Materials for use as natural gravel surfacing shall be classified, in order of preference, as follows

308.3.1.1 Processed natural material

308.3.1.2 Decomposed granite

308.3.1.3 The CONTRACTOR may supply either of these materials when natural surfacing is specified without further qualification.

308.3.2 PROCESSED NATURAL MATERIAL: Processed natural material shall consist of hard, durable fragments of stone or gravel and a filler sand or other finely divided mineral matter. It shall be free from an excess of soft or disintegrated pieces, alkali, adobe, vegetable matter, loam or other deleterious substances.

308.3.2.1 Physical Requirements: When sampled and tested in accordance with standard testing methods, the aggregate shall meet the following requirements:

308.3.2.2 Percentage of Wear: When tested in accordance with ASTM C 131, the percentage of wear shall not exceed 40 percent after 500 revolutions.

308.3.2.3 Plasticity Index: When tested in accordance with AASHTO T 90, the plasticity index shall not be more than 8 nor less than 3.

308.3.2.4 Grading: The aggregate shall be well graded when tested in accordance with ASTM C 136 and C 117. The percentage composition by dry weight shall be within the following limits:

Screen Or sieve	Percent Passing
1 1/2 inch	100
1 inch	90 - 100
No. 4	40 - 75
No. 200	6 - 20

308.3.3 DECOMPOSED GRANITE: Decomposed granite shall be any granitiod rock which has been weathered in place and which has principle constraints granular fragments of quartz and feldspar. It may also contain fragments of granitic rock not yet broken down into the component minerals. This material shall remain stable when saturated with water. Particles larger than 2 inches which will not be broken in the process of rolling and tamping during construction, shall not be used. Decomposed granite shall meet the following specifications:

308.3.3.1 Physical Requirements: When sampled and tested in accordance with the standard testing methods the aggregate shall meet the following requirements:

308.3.3.2 Percentage of Wear: Testing shall be in accordance with ASTM C 131, except that a 15 pound total representative sample shall be utilized and that nothing shall be placed in the drum other than the sample. When tested as herein described not more than 20 percent of the total sample shall pass the No. 200 sieve after 500 revolutions. Testing of this product shall be in accordance with ASTM C 117.

308.3.3.3 Plasticity Index: When tested in accordance with AASHTO T 90, the plasticity index shall not be more than 10 nor less than 3.

308.3.3.4 Grading: When tested in accordance with ASTM C 136 and C 117, the percentage composition by dry weight shall be within the following limits:

Screen or Sieve	Percent Passing
2 inch	100
No. 4	40 - 75
No. 200	6 - 20

308.4 SAMPLE

A representative sample of proposed material to be utilized as natural gravel surfacing shall be submitted to the City Materials Testing Laboratory two weeks prior to intended use. This material

shall be tested for specification compli-
ance and recommendations.

308.5 CONSTRUCTION OF ROADWAY

308.5.1 Natural gravel surfacing shall
have a minimum compacted thickness of 6
inches. The construction plans may
require a greater thickness, due to local
conditions.

308.5.2 The surfacing material shall be
compacted to 95 percent of maximum den-
sity as determined by AASHTO T 180 for
full thickness of surface.

308.5.3 The slope of roadway surface
from crown to edge of surfacing shall be
2 percent.

308.6 MEASUREMENT AND PAYMENT

The measurement for natural gravel sur-
facing shall be the square yard for a
specified thickness. Payment will be
made at the unit price per square yard as
indicated in the Bid Proposal.